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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,142	09/22/2003	Isao Kakuhari	2003_1330A	5803
513 7590 12/08/2008 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021				
EXAMINER				
LAO, LUN S				
ART UNIT		PAPER NUMBER		
2614				
MAIL DATE		DELIVERY MODE		
12/08/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/665,142

Applicant(s)

KAKUHARI ET AL.

Examiner

LUN-SEE LAO

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 0208.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17, 19-26 and 37-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17, 19-26 and 37-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Introduction

1. This action is in response to the amendment filed on 08-04-2008. Claims 1-16, 18, and 27-36 have been cancelled and claim 17 has been amended and claims 37-47 have been added. Claims 17, 19-26 and 37-47 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 47 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 47 recited "said at least one loudspeaker comprises a plurality of loudspeakers" attached to each said at least one housing on the noise propagation side thereof so as to face the external noise source and thereby block the noise propagation path such that noise from the external noise source is radiated into the enclosed space by said plurality of loudspeakers". However, the specification does not disclose how one loudspeaker comprises a plurality of loudspeakers. It was not supported in the specification nor in any claim originary presented and any figures.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 17, 24, 26, 37, 43 and 45-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Mason (US PAT 5,410,607).

Consider claim 17 Mason teaches a noise reduction apparatus for reducing noise propagated toward a predetermined space on one side of a wall from an external noise source on another side of the wall, comprising(see fig.2):

a housing(106), to be attached to a surface(102) of the wall so as to face the external noise source (102 and N noise by vibration surface 102) and thereby block a noise propagation path, for generating an enclosed spaces(reads on, aircraft cabin and see col. 2 line 35-52) for noise reduction between the external noise source (102) and the wall (reads on, aircraft cabin and see col. 2 line 35-52);

a loudspeaker (104), to be attached to the housing (106) so as to face the external noise source(N noise) and thereby block the noise propagation path, for radiating sound into the enclosed spaces(reads on, aircraft cabin and see col. 2 line 35-52);

a sound detector (reads on, motion sensor (200)) to be placed within the enclosed space for detecting sound propagated from the external noise source through said loudspeaker(104); and

a control arrangement (202) for causing said loudspeaker(104) to radiate sound so as to minimize sound to be detected by said sound detectors(200), based on a results corresponding to the sound as detected by said sound detector (200 and see col. 5 line 1- col. 6 line 17).

Consider claim 24 Mason teaches the noise reduction apparatus wherein said control arrangement comprises a control section placed in of the enclosed spaces(see fig. 2 and see col. 5 line 1- col. 6 line 17).

Consider claim 43 it is essentially similar to claim 24 and it is rejected for the reason stated above apropos to claim 24.

Consider claim 26 Mason teaches the noise reduction apparatus wherein loudspeaker comprises a piezoelectric loudspeaker(see col. 8 line 49-55).

Consider claim 45 it is essentially similar to claim 26 and it is rejected for the reason stated above apropos to claim 26.

Consider claim 37 Mason teaches a noise reduction apparatus for reducing noise propagated toward a predetermined space on one side of a wall from an external noise source that is located on an other side of the wall, the external noise source having a noise propagation path from the external noise source toward the other side of the wall, and said apparatus comprising(see fig.2):

at least one housing (see fig.2 (106) that is attached to a surface of the wall so as to face the external noise source(102 and N noise by vibration surface 102), thereby blocking the noise propagation path, and generate an enclosed space(reads on, aircraft cabin and see col. 2 line 35-52) for noise reduction between the external noise source

(102 and N noise by vibration surface 102) and the wall(reads on, aircraft cabin and see col. 2 line 35-52), said at least one housing comprising a wall side (102) positioned against the other side of the wall(reads on, aircraft cabin and see col. 2 line 35-52) and a noise propagation side positioned facing the external noise source; at least one loudspeaker (104) attached to each said at least one housing(106) on the noise propagation side thereof so as to face the external noise source (N noise) and thereby block the noise propagation path such that noise from the external noise source is radiated into the enclosed space (reads on, aircraft cabin and see col. 2 line 35-52) by said at least one loudspeaker(104); a sound detector(reads on, motion sensor (200)) placed within each said enclosed space (reads on, aircraft cabin and see col. 2 line 35-52) such that said sound detector detects sound propagated from the external noise source through said at least one loudspeaker(104); and a control arrangement (202) for causing said at least one loudspeaker to radiate sound so as to minimize sound detected by said sound detector based on a result corresponding to the sound detected by said sound detector (200 and see col. 5 line 1- col. 6 line 17).

Consider claims 46 and 47 Mason teaches the noise reduction apparatus wherein said at least one housing(see figs. 7a-7d (101)) comprises a plurality of housings(100) positioned on the surface of the wall (102 and see col. 10 line 8-68) so as to face the external noise source(N noise in fig.2 and see col. 5 line 1-68); and the noise reduction apparatus wherein said at least one loudspeaker comprises a plurality of loudspeakers(see figs 7a-7d (100) and see col. 10 line 8-68) attached to each said at least one housing on the noise propagation side thereof so as to face the external noise

source and thereby block the noise propagation path such that noise from the external noise source is radiated into the enclosed space(reads on, aircraft cabin and see col. 2 line 35-52) by said plurality of loudspeakers(see figs 7a-7d (100) and see col. 10 line 8-68).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 19-23, 25 and 38-42, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mason (US PAT 5,410,607) in view of Fuller et al (US PAT. 5,692,053).

Consider claim 19 Mason does not explicitly teach the noise reduction apparatus further comprising: a vibration damping section for damping a vibration in a position barycenter of a corresponding enclosed space.

However, Fuller teaches a vibration damping section for damping a vibration in a position barycenter of a corresponding enclosed space (see fig. 4 and col. 4 line 32-52).

Therefore it would have been Obvious to one having ordinary skill in the art at the time the invention was made to modify Mason with the teaching of Fuller to provide to the active vibration inputs in order to minimize the radiated sound.

Consider claim 38 it is essentially similar to claim 19 and it is rejected for the reason stated above apropos to claim 19.

Consider claims 20-21 Mason teaches the noise reduction apparatus wherein said vibration damping section comprises a pole for connecting a corresponding said housings with the wall (see fig. 2(106) and see col. 5 line 1- col. 6 line 17); and the noise reduction apparatus wherein of said sound detectors(see fig.2 (200)) is connected to said pole (see col. 5 line 1- col. 6 line 17).

Consider claims 39 and 40 they are essentially similar to claims 20-21 and they are rejected for the reason stated above apropos to claims 39 and 40.

Consider claims 22-23 Mason as modified by Fuller teaches the noise reduction apparatus wherein of said vibration damping sections comprises a plummet to be positioned at the barycenter of the enclosed space (Fuller, see fig. 4 and col. 4 line 32-52); and the noise reduction apparatus further comprising: a film connected to each of said housings for generating a closed space within a of the enclosed space (Fuller, see fig.3 (75) and col. 6 line 22-67).

Consider claims 41 and 42 they are essentially similar to claims 20-21 and they are rejected for the reason stated above apropos to claims 41 and 42.

Consider claim 25 Mason as modified by Fuller teaches the noise reduction apparatus further comprising: a noise detector to be positioned outside the predetermined space, wherein said control arrangement is for generating control signals based on results corresponding to the sound as detected by said sound detectors and noise as detected by said noise detector(Fuller, see fig. 4 (84) and col. 4 line 32-52 and

discussion above claim 2); and the noise reduction apparatus wherein loudspeaker comprises a piezoelectric loudspeaker(Fuller, see fig.3 (74) and col. 6 line 22-67 and discussion above claim 2).

Consider claim 44 it is essentially similar to claim 25 and it is rejected for the reason stated above apropos to claim 25.

Response to Arguments

8. Applicant's arguments with respect to claims 17, 19-26 and 37-47 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Suzuki (US PAT. 5,377,275) is cited to show other related noise control apparatus.

11. Any response to this action should be mailed to:

Mail Stop ____ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:
(571) 273-8300

Hand-delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao, Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

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Art Unit: 2614

US Patent and Trademark Office

Knox

571-272-7501

Date 11-25-2008

/Xu Mei/

Primary Examiner, Art Unit 2614